

IN THE CLAIMS

Claims 1-6 (Cancelled).

7. (Currently Amended) A method of manufacturing a solid-electrolyte battery comprising:

forming ~~solid-electrolyte layers~~ a first set of gel-electrolyte layers on both sides of a positive electrode collector;

forming ~~solid-electrolyte layers~~ a second set of gel-electrolyte layers on both sides of a negative electrode collector;

forming a positive electrode comprising the first set of gel-electrolyte layers on both sides of the positive electrode collector;

forming a negative electrode comprising the second set of gel-electrolyte layers on both sides of a negative electrode collector;

laminating said positive electrode and said negative electrode such that one of the first set of gel-electrolyte layers and one of the second set of gel-electrolyte layers ~~one of said solid-electrolyte layers formed on said positive electrode and one of said solid-electrolyte layers formed on said negative electrode~~ face each other;

winding said positive electrode and said negative electrode such that another one of the first set of gel-electrolyte layers and one of the second set of gel-electrolyte layers ~~of said solid-electrolyte layers formed on said positive electrode and another one of said solid-electrolyte layers formed on said negative electrode~~ face each other; and

subjecting said wound electrodes to heat treatment so that each of the first set of gel-electrode layers and the one of the second set of gel-electrolyte layers facing each other

~~said solid-electrolyte layers formed on said positive electrode and said solid-electrolyte layers formed on said negative electrode~~ are integrated with each other into one continuous seamless layer,

wherein,

wherein said gel-electrolyte layers comprise an electrolyte salt, a nonaqueous solvent and a matrix polymer.

8-9. (Canceled).

10. (Original) The method of claim 7, wherein said wound electrodes are subjected to heat treatment for ten minutes.

11. (Currently amended) The method of claim 8 7, wherein said ~~solid-electrolyte gel-electrolyte~~ layers comprise one of LiPF_6 , LiAsF_6 , LiBF_4 , LiClO_4 , LiCF_3SO_3 , $\text{Li}(\text{CF}_3\text{SO}_2)_2\text{N}$ and $\text{LiC}_4\text{F}_9\text{SO}_3$ or their mixture.

12. (Currently amended) The method of claim 8 7, wherein said matrix polymer is any one of polyacrylonitrile, polyvinylidene fluoride, polytetrafluoroethylene, polyhexafluoropropylene, polyethylene oxide, polypropylene oxide, polyphosphagen, polysiloxane, polyvinyl acetate, polyvinyl alcohol, polymethyl methacrylate, polyacrylic acid, polymethacrylic acid, styrene-butadiene rubber, nitrile-butadiene rubber, polystyrene or polycarbonate.

13. (Currently amended) The method of claim 8 7, wherein said ~~swelling solvent is any one of the following~~ nonaqueous solvent~~[:] is selected from the group consisting of~~ ethylene carbonate, propylene carbonate, butylene carbonate, γ -butyrolactone, γ -valerolactone, diethoxyethane, tetrahydrofuran, 2-methyltetrahydrofuran, 1, 3-dioxane, methyl acetate, methyl propionate, dimethylcarbonate, diethyl carbonate or ethylmethyl carbonate or their mixture.

14. (Previously Presented) The method of claim 7 further comprising inserting said wound electrodes into a film pack.

15. (Currently amended) The method of claim 14 further comprising subjecting said film pack to heat treatment so that said ~~solid-electrolyte~~ gel-electrolyte layers formed on said positive electrode and said ~~solid-electrolyte~~ gel-electrolyte layers formed on said negative electrode are integrated with each other into one continuous seamless layer.

16. (Canceled)

17. (Currently Amended) A method of manufacturing a solid-electrolyte battery comprising:

forming ~~solid-electrolyte~~ gel-electrolyte layers on both sides of a positive electrode and a negative electrode, wherein one of said solid-electrolyte layers formed on said positive electrode and one of said ~~solid-electrolyte~~ gel-electrolyte layers formed on said negative electrode face each other;

winding said positive electrode and said negative electrode after pressing; and

subjecting said wound electrodes to heat treatment ~~at about 70°C for about 10 minutes~~ so that said ~~solid-electrolyte~~ gel-electrolyte layers formed on said positive electrode and said ~~solid-electrolyte~~ gel-electrolyte layers formed on said negative electrode are integrated with each other into one continuous seamless layer,

wherein,

wherein said gel-electrolyte layers comprise an electrolyte salt, a
nonaqueous solvent and a matrix polymer.